

1 I claim:

2 1. A wave reducing and eliminating ship hull comprising:

3  
4 a generally triangular hull having a pointed narrow bow portion and  
5 a stern portion wider than said bow portion;

6  
7 said hull including generally rectilinear diverging sides extending  
8 substantially from said bow to said stern; and

9  
10 said hull having a draft adjacent said bow deeper than the draft  
11 adjacent said stern.

12  
13 2. The ship hull of claim 1 wherein said bow portion of said  
14 hull is generally free of depending structures.

15  
16 3. A transonic hull having a submerged portion with a bow,  
17 a stern, a waterplane which in static conditions and in motion has  
18 an approximately triangular shape with an apex adjacent said bow  
19 and a base adjacent said stern, said submerged portion in said  
20 static condition having a deep draft adjacent said bow and a draft  
21 adjacent said stern no greater than approximately 4% the width of  
22 said base, with said draft at said stern decreasing by virtue of  
23 the motion of said hull on the water towards zero relative to the  
24 water flowing adjacent and downstream from said stern.

25  
26 4. A transonic hull having a bow, a stern, a length and  
27 power means to move said TH in the water at supercritical and  
28 subcritical speed regimes, said hull when in motion in displacement

1 mode having

2 a) A submerged portion with a generally triangular waterplane  
3 with apex adjacent said bow and a base adjacent said stern.

4 b) A profile with a deeper draft adjacent said bow and no  
5 bulb, and substantially zero draft adjacent said stern  
6 relative to water flowing smoothly downstream below said  
7 stern.

8 c) Said hull further characterized in having, when floating  
9 static in water, a draft adjacent said stern no greater than  
10 substantially 4% of the width of said base.

11  
12 5. The transonic hull of Claim 4 in which said draft  
13 adjacent said stern is substantially eliminated in relation to  
14 water level adjacent and aft of said stern when propelled by said  
15 power means at speed-to-length greater than 1.25.

16  
17 6. A transonic hull having a weight, a submerged portion, a  
18 bow, a stern, a generally triangular waterplane with a longitudinal  
19 length and an apex adjacent said bow, and a center of area of said  
20 waterplane, with the position of the center of gravity of said  
21 weight being located at a longitudinal distance forward of said  
22 center of area at least as large as approximately 1.5% of said  
23 longitudinal length, whereby hydrodynamic drag is minimized.

24  
25 7. The transonic hull of Claim 6, with said longitudinal  
26 distance being no greater than approximately 10% of said  
27 longitudinal length.

1        8. A transonic hull having a weight, a submerged portion, a  
2 bow, a stern, a generally triangular waterplane, with a  
3 longitudinal length, an apex adjacent said bow, and a base adjacent  
4 said stern, and a center of area of said waterplane, with the  
5 position of the center of gravity of said weight being located at  
6 a longitudinal distance forward of said center of area at least as  
7 large as approximately 5% of the length of said base, whereby  
8 hydrodynamic drag is minimized.

9  
10       9. The transonic hull of Claim 8, with said longitudinal  
11 distance being no greater than approximately 10% of said  
12 longitudinal length.

13  
14       10. A transonic hull having a bow, a midbody, a stern  
15 propulsive means having water impeller means capable of imparting  
16 sustained motion at a sustained speed-to-length ratio at least as  
17 large as substantially 1.25, said hull further characterized in  
18 having a submerged portion with a waterplane of generally  
19 triangular shape with apex adjacent said bow, a base adjacent said  
20 stern, and a profile view with a deep draft away from said stern  
21 and adjacent said midbody, and substantially zero draft at said  
22 stern relative to water flow downstream from below said stern.

23  
24       11. A transonic hull having a bow, a stern, an undersurface,  
25 and an approximately triangular waterplane at water level with an  
26 apex angle adjacent said bow; said transonic hull being further  
27 characterized in that the included exit angle in side view between  
28 the rearward undersurface portion adjacent said stern and a line

1 parallel to water level intersecting the lower corner of said stern  
2 being no greater than approximately said apex angle.

3  
4 **12.** The structure of Claim **11** in that said exit angle is  
5 approximately 60% of said apex angle.